REMARKS

Claims 1-9 are pending in this application with claims 1, 3-5, 7 and 9 being amended by this response.

Objection to the Drawings

The drawings are objected to because legends should be drawn to the blank boxes. Attached please find amended drawing sheets including legends within the boxes. The legends inserted in the boxes are fully supported by the specification and thus it is respectfully submitted that no new matter is added by the addition of the legends to the drawings. In view of the attached amended drawings, it is respectfully submitted that this objection is satisfied and should be withdrawn.

Objection to the Claims

Claim 3 was objected to for certain informalities. Claim 3 has been amended in accordance with the comments of the Examiner to correct a typographical error by changing its dependency from claim 1 to claim 2. In view of the above remarks and amendment to claim 3 it is respectfully submitted that this objection is satisfied and should be withdrawn.

Rejection of Claims 1, 7 and 8 under 35 USC § 103(a)

Claims 1, 7 and 8 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Yoneda (U.S. Patent No. 6,609,251) in view of Deniau et al. (European Patent No. EP823798A1).

Claim 1 of the present invention recites a process of constructing databases for digital television services. The process includes tuning a tuner to a carrier frequency. A signal received by the tuner tuned to the carrier frequency is then filtered by a demultiplexer and data representing the information table of the current network is

extracted from the received signal. A trio of information items constituted by the information table, the carrier frequency, and an identifier is stored in a table. Data representing the service table is extracted and a trio of information items constituted by the service table, the frequency of the carrier and the identification of the SDT service table is stored. The tuner then searches for the next carrier frequency; and the process is repeated until the whole of the frequency span has been swept. Claim 7 is directed to a receiver including limitations similar to those discussed above with respect to claim 1. Claim 7 has been amended by adding certain limitations previously found in claim 9. The limitations added to claim 7 relate to extracting the service information tables and storing in the database. Claim 7 has also been amended to add the limitation that the network information table and service information table are extracted by a scanning of a frequency span.

Yoneda discloses an apparatus and method for digital broadcasting transmitting and reproducing. Yoneda creates and transmits plural packets including video data packets of digitized video and service information. Yoneda includes a receiving unit which receives the transmitted transport stream and separates the information table and service table from the stream.

Deniau discloses a method of receiving and storage cyclic packet data transmission. The data packets are constantly updated, a new value of referenced data can be received at any time. Thus, the method according to Deniau allows the updating of an internal database, for providing the updated information to the application that requests it. The disclosed method consists in that the application launches data requests (Unique, advance one-off or permanent) for feeling the database. Then, if an application needs an information from the stream, the module management immediately transmits the stored information (if available) without waiting that this information is received from the stream. In this context, Deniau discloses a "buffer memory" that quickly provides the requested information.

The present claimed invention is not placed in this context. The present claimed invention relates to data broadcast in a horizontal market. As recited on page 1, lines

23-28 of the specification, "[I]n a horizontal organization of the market,... <u>several</u> broadcasters control various bouquets and various networks. In this case, it may be useful to store the tables of the digital video broadcasters (DVB: Digital Video Broadcast table) in a database and to inject these stored tables into the MPEG stack of the operating system of a digital decoder." In such context, it is important to receive all the service data information (i.e. <u>the NIT table</u> **and** <u>the SDT table</u>) from the available bouquet, before launching the normal work of the receiver. This is why the present claimed "process for constructing databases" comprises the step of "searching by the tuner for the next carrier frequency and repetition of steps b) to f) until the whole of the frequency span has been swept." After the switch on decoder, the database creation procedure is launched.

According to Deniau, the multiplexed data stream contains all information describing the state of the broadcast network. Therefore, unlike the present claimed invention, Deniau does not need to scan the frequency span for retrieving the service information. Deniau is concerned with a vertical market not a horizontal market as in the present claimed invention. The present claimed invention relates to the creation of a particular database. Thus, as Yoneda neither discloses nor suggests storing of the extracted data and there is no need in Deniau to scan the frequency span as is required by the present claimed invention, it is respectfully submitted that the present invention is not obvious in view of either Yoneda and Deniau, when taken alone or in combination. It is thus further respectfully submitted that this rejection is satisfied and should be withdrawn.

Rejection of Claim 4 under 35 USC § 103(a)

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yoneda and Deniau as applied to claim 1 above, and further in view of Suzuki et al. (U.S. Patent No. 5,864,358).

The Examiner contends that Suzuki discloses a "digital broadcasting system wherein at power up, program tables for a physical channel are extracted and stored and

a demodulation section will sequentially cycle through every tunable physical channel and repeat the extraction and storing for each physical channel." The Examiner further contends that one of ordinary skill in the art would modify Yoneda and Deniau's system to include the repetition of the steps for the whole frequency span.

Applicants respectfully disagree with this contention of the Examiner. The database created by Suzuki's system is not the same that the database of the Deniau system. According to the system of Suzuki, a frequency span is scanned and for each time that a channel is found, the NIT table is stored in the database (see column 17, line 12). The NIT table contains the list of services offered by the network. Once the frequency span is scanned, the list of NIT is complete and a user can navigate on this list and select a service. Alternatively, in the present claimed invention, during the step of sweeping the frequency span, the receiver extracts the data representing the service table and stores the trio constituted by the service table, the frequency of the carrier and the identification of the SOT service table. Such is neither disclosed nor suggested by Suzuki as it is considered that the network is very-well described by the NIT table. However, in the context of the horizontal market of the present claimed invention, a broadcaster can modify the nature and the composition of his transmissions without informing the other broadcaster such as "when the broadcaster adds new services to his bouquet or when he withdraws certain services which do not enjoy commercial success" (see page 6, lines 7-9). This problem is not evoked in the Suzuki's system, the storage of NIT data at the power up is sufficient for creating a usable database.

In the present claimed invention, the database contains two sets of data:
- the trio of information items constituted by the information table, the carrier frequency, and an identifier; and
- the trio constituted by the service table, the frequency of the carrier and the identification of the SOT service table.

The extracting and the storing of the second trio of information during a frequency span is not disclosed nor suggested by Suzuki teaching. If an ordinary skill in the art would combine the Yoneda and Deniau's system with the Suzuki's system, the

database would firstly contain only the NIT table. After the power up, if a request according to Deniau's teaching would launch, this request would use only the NIT data previously stored according to Suzuki's teaching. The NIT data would allow searching the information in the broadcast stream.

However, such a combined system does not solve the problem solved by the present claimed invention: if a broadcaster withdraws a service without informing the other broadcaster (therefore their NIT data is not updated), the selection of this service based on erroneous NIT information would not be possible. To the contrary, the present claimed invention, the storage of NIT information and SOT information allows for the selection of a service can be done with NIT and SOT information and is correctly carried out.

In view of the above remarks and amendments to the claims, it is respectfully submitted that the present invention as claimed in claim 4 is not obvious in view of Yoneda, Deniau and Suzuki et al, when taken alone or in any combination. It is thus further respectfully submitted that this rejection is satisfied and should be withdrawn.

Rejection of Claims 2, 5, 6 and 9 under 35 USC § 103(a)

Claims 2, 5, 6, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoneda and Deniau as applied to claim 1 and 7 above, and in further view of Sinclair (U.S. Patent Application Serial No. US 2001/0011334 A1).

Sinclair discloses an addressable memory device for storing blocks of varying length. Sinclair was cited to show a memory device for storing data in compressed form. However, Sinclair, when taken alone or in combination with Yoneda and Deniau as discussed above, neither disclose nor suggest "searching by the tuner for the next carrier frequency and repetition of steps b) to f) until the whole of the frequency span has been swept" as in the present claimed invention. Additionally, Sinclair, when taken alone or in combination with Yoneda and Deniau as discussed above, neither disclose nor suggest "means for scanning and extracting by a tuner on a whole of a frequency

span of data representing the network information table and service information table, wherein the memory contains a database containing at least one trio of information items constituted by an information table, the carrier frequency corresponding to the network whose information table is extracted, and an identifier of the table, and a second trio of information items constituted by the extracted service information table, the frequency of the carrier and the identification of the SDT service table" as claimed in claim 7 on which claim 9 is dependent.

In view of the above remarks and amendments to the claims, it is respectfully submitted that the present invention as claimed in claims 2, 5, 6 and 9 is not obvious in view of Yoneda, Deniau and Sinclair, when taken alone or in any combination. It is thus further respectfully submitted that this rejection is satisfied and should be withdrawn.

Rejection of Claim 3 under 35 USC § 103(a)

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yoneda Deniau, and Sinclair as applied to claim 2 above, and further in view of Burrows et al. (U.S. Patent No. 5,745,894).

Burrows et al. are cited to show a method of indexing a database wherein an index is created identifying information contained in the database and the location of the information for providing a way to easily search entries in the database. However, Burrows et al., when taken alone or in combination with Yoneda and Deniau as discussed above, neither disclose nor suggest "searching by the tuner for the next carrier frequency and repetition of steps b) to f) until the whole of the frequency span has been swept" as in the present claimed invention.

Therefore it is respectfully submitted that Burrows et al. adds nothing when taken in any combination with Yoneda, Deniau and Sinclair which would make the present claimed invention obvious. It is thus further respectfully submitted that this rejection is satisfied and should be withdrawn.

Having fully addressed the Examiner's rejections, it is believed that, in view of the preceding amendments and remarks, this application stands in condition for allowance. Accordingly then, reconsideration and allowance are respectfully solicited. If, however, the Examiner is of the opinion that such action cannot be taken, the Examiner is invited to contact the applicant's attorney at the phone number below, so that a mutually convenient date and time for a telephonic interview may be scheduled.

No fee is believed due. However, if a fee is due, please charge the additional fee to Deposit Account 07-0832.

Respectfully submitted,
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By: _____

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Date: __June 15, 2004__   _Eliza Buchalczyk_

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